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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,382	10/23/2001	Takanobu T Sugo	214904US0PCT	9841
22850	7590	02/18/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HOPKINS, ROBERT A	
			ART UNIT	PAPER NUMBER

1724

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary

Application No.

09/926,382

Applicant(s)

SUGO ET AL.

Examiner

Robert A Hopkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 15 is/are rejected.
- 7) ☒ Claim(s) 10-14, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-22-02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 9-17 in Paper dated 2-2-04 is acknowledged. The traversal is on the grounds that the International Search Report unity of Invention was not found to be lacking, and that the Office has not applied the same standard of unity of invention as that applied in the International Search Report. This is not found persuasive because 37 CFR 1.499 recites the following:

§ 1.499 Unity of invention during the national stage.

If the examiner finds that a national stage application lacks unity of invention under §1.475, the examiner may in an Office action require the applicant in the response to that action to elect the invention to which the claims shall be restricted. Such requirement may be made before any action on the merits but may be made at any time before the final action **at the discretion of the examiner**. Review of any such requirement is provided under § 1.143 and 1.144.

Examiner notes Applicant also argues that the burden of proof is on the office to provide reasons and/or examples to support any conclusion with regard to patentable distinctness, and refers examiner to MPEP section 803. Examiner notes however, that MPEP section 803 deals with restriction in normal U.S. filed applications. Because the current application is a national stage application of an international application, the independent or distinct requirement of section 803 is not required. The less stringent test of lacking the same or corresponding special technical features is applied in national stage applications. Clearly the process of claim 9 does not include the special

technical feature of alternate layers of fibrous metal collecting material with a spacer as recited in claim 1.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 1-8 drawn to an invention nonelected with traverse in Paper dated 2-2-04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9,15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kingston, Jr et al(5126272).

Kingston, Jr et al teaches a process for eluting and recovering a metal from a metal collecting material comprising the steps of contacting the metal collecting material having adsorbed a metal with a dilute eluent(column 7 lines 22-36), contacting the metal collecting material with an eluent more concentrated than in step 1 to recover the metal in the eluent(column 7 lines 37-47, noting specifically 2.5M acid), and contacting a metal resorbing material with the eluate from step 2 to resorb the metal(column 7 lines 54-62).

Kingston, Jr et al further teaches wherein the metal collecting material to be treated contains an amidoxime group(column 6 line 36).

Allowable Subject Matter

Claims 10-14,16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 10 recites "further comprising, between steps 1 and 2, the step of contacting the collecting material with an eluent having a concentration higher than that of the eluent in step 1 but lower than that of the eluent in step 2". Kingston, Jr et al discloses a first contacting step using an eluent at 2M, and a second contacting step using an eluent at 2.5 M, but does not disclose a contacting step between the disclosed first contacting step and second contacting step. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide between steps 1 and 2, the step of contacting the collecting material with an eluent having a concentration higher than that of the eluent in step 1 but lower than that of the eluent in step 2 because Kingston, Jr et al does not suggest such a modification. Claim 11 depends on claim 10 and hence would also be allowable upon incorporation of claim 10 into claim 9.

Claim 12 recites "further comprising the step of washing the collecting material before step 1 with the effluent from step 1 and/or the effluent from step 3". Kingston et al discloses a pre-buffering step using ammonium acetate, but does not disclose using the effluent from step 1 and/or the effluent from step 3. Examiner notes from figure 5

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that the effluent from step 1 is passed to waste, and the effluent from step 3 is also passed to waste. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of washing the collecting material before step 1 with the effluent from step 1 and/or the effluent from step 3 because Kingston et al does not suggest such a modification.

Claim 13 recites "wherein the effluent from step 3 is used as an eluent in step 1". Examiner notes from figure 5 that the effluent from step 3 is passed to waste. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of wherein the effluent from step 3 is used as an eluent in step 1 because Kingston et al does not suggest such a modification.

Claim 14 recites "comprising the step of contacting the metal resorbing material having resorbed the target metal from step 3 with an eluent more concentrated than the eluent used in step 3 to recover the target metal in the eluent". Kingston et al discloses using an eluent less concentrated than the eluent in step 2 for contacting the metal resorbing material having resorbed the target metal from step 3(column 8 lines 37-49). It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of contacting the metal resorbing material having resorbed the target metal from step 3 with an eluent more concentrated than the eluent used in step 3 to recover the target metal in the eluent because Kingston et al does not suggest such a modification.

Claim 16 recites "wherein the metal collecting material to be treated is in the form of a woven or nonwoven fabric consisting of a fiber assembly". Kingston, Jr et al

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discloses a metal collecting material including a resin substrate with a amidoxime functional group bound to the resin substrate. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a metal collecting material to be treated which is in the form of a woven or nonwoven fabric consisting of a fiber assembly because Kingston, Jr et al does not suggest such a modification.

Claim 17 recites "wherein the metal collecting material to be treated is prepared by using radiation-induced graft polymerization". Kingston, Jr et al fails to disclose a method of preparation of the metal collecting material. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of wherein the metal collecting material to be treated is prepared by using radiation-induced graft polymerization because Kingston, Jr et al does not suggest such a modification.

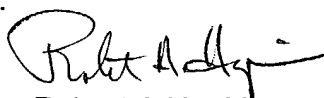
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ryan(3660283) discloses a step of eluting a cation exchange resin used for the purification of water which includes passing a resin first through a dilute regenerant zone and then to a more concentrated regenerant zone. No disclosure of contacting a metal resorbing material from the eluate of the more concentrated step. Ryan merely discloses other further resin treatment means(column 2 lines 24-25).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday 9:00am-4:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert A Hopkins
Primary Examiner
Art Unit 1724

Rah
February 12, 2004